

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

Claims 1-124 (canceled)

125. (previously presented) A recombinant protein encoded by a polynucleotide which comprises two nucleic acid subsequences,

wherein the first nucleic acid subsequence encodes a soluble fragment of an insoluble human TNF receptor protein,

wherein said insoluble human TNF receptor protein has an apparent molecular weight of about 75 kilodaltons as determined on a non-reducing SDS-polyacrylamide gel,

and the second nucleic acid subsequence encodes all of the domains of the constant region of a human immunoglobulin heavy chain other than the first domain of said constant region, and

wherein said recombinant protein exhibits specific TNF binding activity.

126. (previously presented) The recombinant protein of claim 125 wherein the insoluble human TNF receptor protein comprises the amino acid sequence set forth in SEQ ID NO: 4.

127. (currently amended) The recombinant protein of claim 125 wherein said soluble fragment comprises the amino acid sequence LCAP (SEQ ID NO: 12).

128. (currently amended) The recombinant protein of claim 127 wherein said soluble fragment comprises the amino acid sequence VFCT (SEQ ID NO: 8).

129. (previously presented) The recombinant protein of claim 128 wherein said soluble fragment comprises the amino acid sequence LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10).

130. (previously presented) The recombinant protein of claim 125, 128 or 129 wherein said human immunoglobulin heavy chain is an IgG heavy chain.

131. (previously presented) The recombinant protein of claim 130 wherein the IgG is IgG₁ or IgG₃.

132. (previously presented) The recombinant protein of claim 131, wherein the IgG is IgG₁.

133. (previously presented) A recombinant protein encoded by a polynucleotide which comprises two nucleic acid subsequences,

wherein the first nucleic acid subsequence hybridizes to the nucleic acid sequence of SEQ ID NO: 3 under conditions that discriminate between the nucleic acid sequence of SEQ ID NO: 3 and the nucleic acid sequence of SEQ ID NO: 1, and

wherein the first nucleic acid subsequence encodes a soluble fragment of an insoluble TNF receptor protein,

wherein said insoluble TNF receptor protein has an apparent molecular weight of about 75 kilodaltons as determined on a non-reducing SDS-polyacrylamide gel,

wherein the second nucleic acid subsequence encodes all of the domains of the constant region of a human immunoglobulin heavy chain other than the first domain of said constant region, and

wherein said recombinant protein exhibits specific TNF binding activity.

134. (previously presented) The recombinant protein of claim 133 wherein the first nucleic acid subsequence is obtainable by a method comprising a step of hybridizing an oligonucleotide probe encoding the peptide of SEQ ID NO: 10 (LPAQVAFXPYAPEPGSTC) to a cDNA library made from HL60 cell extracts.

135. (currently amended) The recombinant protein of claim 133 wherein said soluble fragment comprises the amino acid sequence LCAP (SEQ ID NO: 12).

136. (currently amended) The recombinant protein of claim 135 wherein said soluble fragment comprises the amino acid sequence VFCT (SEQ ID NO: 8).

137. (previously presented) The recombinant protein of claim 136 wherein said soluble fragment comprises a nucleic acid sequence encoding the amino acid sequence LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10).

138. (previously presented) The recombinant protein of any one of claims 133, 136 or 137 wherein said human immunoglobulin heavy chain is an IgG heavy chain.

139. (previously presented) The recombinant protein of claim 138 wherein the IgG is IgG₁ or IgG₃.

140. (previously presented) The recombinant protein of claim 139, wherein the IgG is IgG₁.

141. (previously presented) A recombinant protein encoded by a polynucleotide which comprises two nucleic acid subsequences,

wherein the first nucleic acid subsequence comprises a nucleic acid sequence encoding a soluble fragment of SEQ ID NO: 4,

wherein the soluble fragment comprises the amino acid sequence LCAP,

wherein the second nucleic acid subsequence encodes all of the domains of the constant region of a human immunoglobulin heavy chain other than the first domain of said constant region, and

wherein said recombinant protein exhibits specific TNF binding activity.

142. (currently amended) The recombinant protein of claim 141 wherein the soluble fragment further comprises the amino acid sequence VFCT (SEQ ID NO: 8).

143. (previously presented) The recombinant protein of claim 142 wherein the soluble fragment further comprises the amino acid sequence LPAQVAFXPYAPEPGSTC (SEQ ID NO: 10).

144. (previously presented) The recombinant protein of claim 141 wherein the first nucleic acid subsequence is obtainable by a method comprising a step of hybridizing an oligonucleotide probe encoding the peptide of SEQ ID NO: 10 (LPAQVAFXPYAPEPGSTC) to a cDNA library made from HL60 cell extracts.

145. (previously presented) The recombinant protein of any one of claims 141, 142 or 143 wherein said human immunoglobulin heavy chain is an IgG heavy chain.

146. (previously presented) The recombinant protein of claim 145 wherein the IgG is IgG₁ or IgG₃.

147. (previously presented) The recombinant protein of claim 146, wherein the IgG is IgG₁.

148. (previously presented) The recombinant protein of claim 145 wherein the second nucleic acid subsequence consists essentially of the immunoglobulin-encoding DNA sequence of pCD4Hy1 vector (deposited at Deutschen Sammlung von Mikroorganismen und Zellkulturen GmbH (DSM) in Braunschweig, FRG under No. DSM 5314) or of pCD4-Hy3 vector (deposited at Deutschen Sammlung von Mikroorganismen und Zellkulturen GmbH (DSM) in Braunschweig, FRG under No. DSM 5523).

149. (previously presented) The recombinant protein of claim 148 wherein the second nucleic acid subsequence consists essentially of the immunoglobulin-encoding DNA sequences of pCD4-Hy1 vector.

150. (previously presented) A method of making a recombinant protein comprising the steps of culturing a host cell which expresses a polynucleotide encoding the recombinant protein of any one of claims 125, 133 or 141 and isolating the recombinant protein from the host cell.

151. (previously presented) A recombinant protein produced by the method of claim 150.

152. (previously presented) A method of making a recombinant protein comprising the steps of culturing a host cell which expresses a polynucleotide encoding the recombinant protein of any one of claims 125, 133 or 141 and isolating the recombinant protein from culture supernatant.

153. (previously presented) A recombinant protein produced by the method of claim 152.

154. (previously presented) A composition comprising the recombinant protein of any one of claims 125, 128, 133, 136, 141 or 142 and a pharmaceutically acceptable carrier material.